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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,468	06/23/2003	Venkat Selvamanickam	SPP 20.070	2661

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EXAMINER	
AUSTIN, AARON	

ART UNIT	PAPER NUMBER
1775	

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,468	SELVAMANICKAM ET AL.	
	Examiner	Art Unit	
	Aaron S. Austin	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 27 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the use of "Inconel", a trade name, in claim 27 is improper. If the trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of the 35 U.S.C. 112, second paragraph. *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. In fact, the value of a trademark would be lost to the extent that it became descriptive of a product, rather than used as an identification of a source or origin of a product. Thus, the use of a trademark or trade name in a claim to identify or describe a material or product would not only render a claim indefinite, but would also constitute an improper use of the trademark or trade name.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

> only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 23-25, 28-34, 37-40, and 42-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Mannhart et al. (US Patent Application Publication No. 2005/0173679).

Mannhart et al. teach a superconductive article comprising a Ni-alloy substrate tape overlayed with a plurality of individually identifiable superconductive films disposed one atop another and in direct contact with each other (Figure 5 and Example 1). A buffer, such as YSZ, is applied prior to application of the superconductive layers to the substrate (Example 1). The buffer layer may have a bi-axial texture (paragraph [0010]). The superconductive layers are a few microns in thickness (paragraph [0010]), usually about 0.5 to 1.5 microns (paragraph [0024]), and each layer may have a different thickness from the other layers (Figure 5). Thus, when multiple layers are combined, the thickness of the resulting superconductive layer falls within the ranges claimed. $ReBa_2Cu_3O_7$ is a suitable material for the superconductive layers, where Re is a rare earth or Y (paragraph [0041]). The current density exceeds 10^6 A/cm^2 ([paragraph [0011]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 26-27, 35-36, 38-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mannhart et al. (US Patent Application Publication No. 2005/0173679).

Mannhart et al. teach a superconductive article as described above.

Mannhart et al. do not specifically teach the substrate as being stainless steel or Inconel, a superconducting layer comprising Sm123, the claimed multiples of layers, nor the current capacity or current density as claimed. Further, in the alternative to the above arguments, the thicknesses as claimed are not specifically taught, although they are implicitly taught as described above.

Regarding claims 26 and 27, substrates made of nickel based alloys or similar materials are taught (paragraph [0010]). Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use steel or Inconel as the substrate, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 35-36, superconductors may be applied as multilayers (paragraph [0041]). Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the multiple layers as taught in Figure 5, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claims 38-40 and 43, the superconductive layers are a few microns in thickness (paragraph [0010]), usually about 0.5 to 1.5 microns (paragraph [0024]), and each layer may have a different thickness from the other layers (Figure 5). Thus, when multiple layers are combined, the thickness of the resulting superconductive layer falls within the ranges claimed. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 41, as Mannhart et al. use like materials in a like manner as claimed, it would be expected that the superconducting article will have the same characteristics claimed, particularly the current capacity, absence a showing of unexpected results.

Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Response to Arguments

Please note for the record, claim 43 was erroneously described as "Previously Presented" rather than "Currently Amended" in the filing of April 21, 2006.

Applicant's arguments, see the Remarks, filed April 21, 2006, with respect to the rejection(s) of claim(s) 23-43 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made in view of new art as set forth above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron S. Austin whose telephone number is (571) 272-8935. The examiner can normally be reached on Monday-Friday: 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASA

JENNIFER C. MCNEIL
SUPERVISORY PATENT EXAMINER
7/7/06